

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
12 January 2006 (12.01.2006)

PCT

(10) International Publication Number  
**WO 2006/004282 A1**

(51) International Patent Classification<sup>7</sup>: H01B 1/04

(21) International Application Number:  
PCT/KR2005/000914

(22) International Filing Date: 29 March 2005 (29.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10-2004-0021056 29 March 2004 (29.03.2004) KR  
10-2004-0028299 23 April 2004 (23.04.2004) KR

(71) Applicant (for all designated States except US): CEN-TECH CO., LTD. [KR/KR]; #202, Business Incubator Center, Korea National Agricultural College, 11-1, Donghwa-ri, Bongdam-eup, Hwaseong-si, Gyeonggi-do, 445-893 (KR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): PARK, Sanggu [KR/KR]; #102, 309-2, Gaebong-dong, Guro-gu, Seoul 152-090 (KR).

(74) Agent: CHANG & HAN PATENT & LAW FIRM; 1405, Gangnam Building, 1321-1, Seocho-dong, Seocho-gu, Seoul 137-857 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

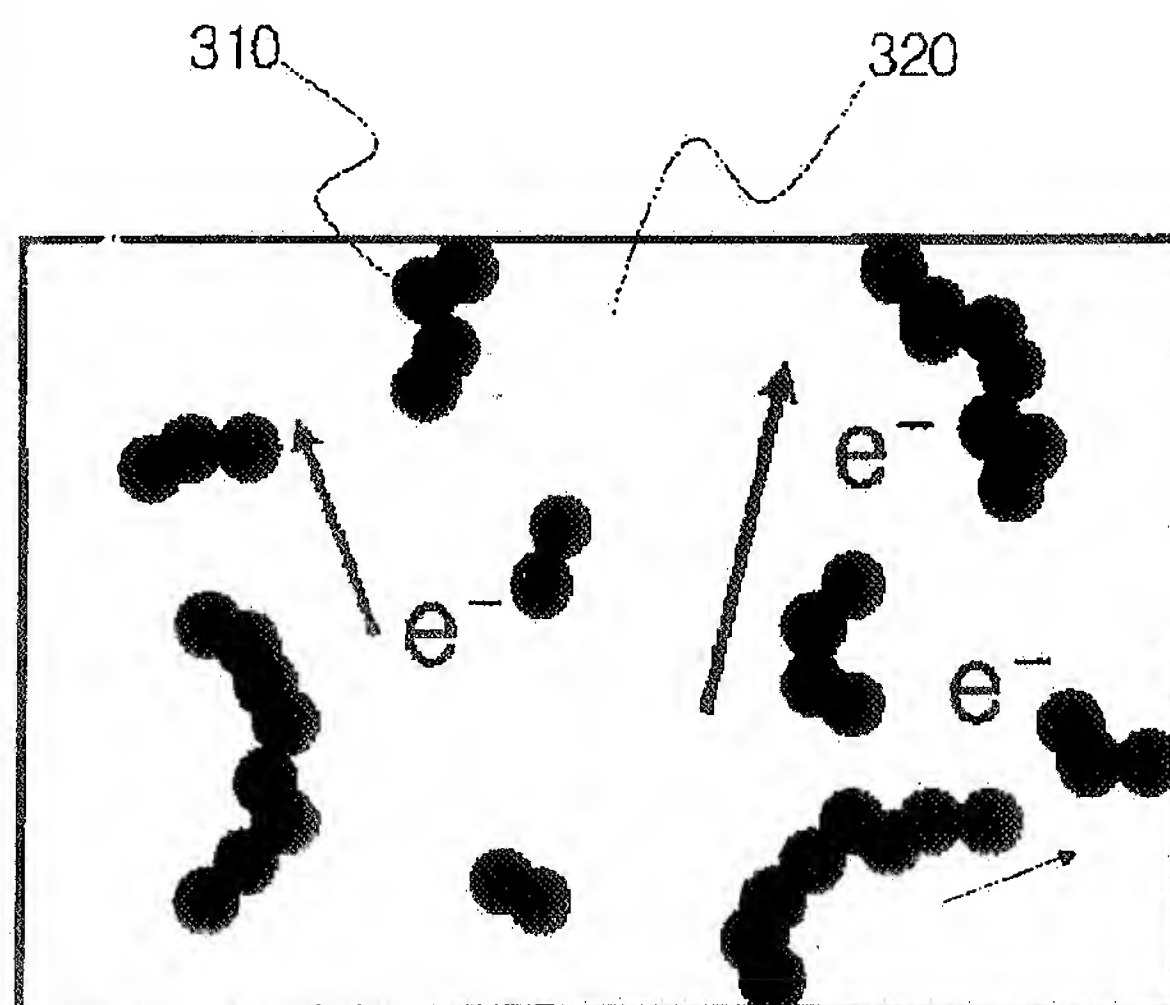
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- with amended claims

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONDUCTIVE COMPOSITION FOR PRODUCING CARBON FLEXIBLE HEATING STRUCTURE, CARBON FLEXIBLE HEATING STRUCTURE USING THE SAME, AND MANUFACTURING METHOD THEREOF



(57) Abstract: Provided is a conductive composition formed of a mixture of liquid silicon rubber and conductive carbon black wherein a weight ratio between the liquid silicon rubber and the conductive carbon black is 100: 1-15, or a conductive composition formed of a mixture of liquid silicon rubber and graphite powder wherein a weight ratio between the liquid silicon rubber and the graphite powder is 100: 10-150. A carbon flexible heating structure is manufactured by mixing a conductive composition formed of liquid silicon rubber and a filler, agitating a mixture of the liquid silicon rubber and conductive carbon black by adding a diluent at a rate of 1-100% with respect to the weight of the liquid silicon rubber, and molding the mixture into a particular shape and curing the molded mixture.

WO 2006/004282 A1